F.P.A. clinic should not be given oral contraception if the doctor objects.

Finally, I would say that the dose 0.05 mg. b.d. of tabs. ethinyl oestradiol might in some cases inhibit ovulation, but this would not be likely where there was evidence of lack of endogenous oestrogen. Presumably the correctness of the dose would be controlled by temperature chart to assure that ovulation was not inhibited.

No general practitioner is of course obliged to prescribe for his patients anything suggested by a consultant or any other doctor. He must, of course, exercise his own discretion since he is ultimately responsible for what he prescribes.—I am, etc.,

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Thalidomide ("Distaval") and Foetal Abnormalities

SIR,—A woman, aged 44, who had previously had three normal babies, was delivered at term of a female baby weighing 3 lb. 10 oz. (1.6 kg.). The baby, which only lived for 20 minutes, showed foetal abnormalities, which on external examination consisted of complete absence of arms and small stumps where the legs should have been; the femora appeared to be absent and the tibiae foreshortened. No post-mortem examination was done.

The patient had been taking "distaval" (thalidomide), 100 mg. nightly, for four months as a sedative before she became pregnant and for the first five months of her pregnancy. Thereafter, until delivery, she had taken 50 mg. nightly.

The congenital abnormalities in this baby are the same as those described by Lenz,[1 2] Pfeiffer and Kosenow,[3 4] Wiedemann,[5] and McBride[6]—namely, symmetrical aplasia and hypoplasia of the extremities. Their reports from West Germany and Australia include several hundred congenitally deformed infants born to mothers taking thalidomide. As well as abnormalities of the extremities, malformations of many other organs have been found, including the gastro-intestinal and genito-urinary tracts, the ears, and the eyes.[4 6]

Distaval (thalidomide) has been withdrawn from the market as a result of these reports (December 2, p. 1499). Thalidomide is also a constituent of "valgraine," "tensival," "asmaval," and "valgris." It is thought to be the cause of the abnormalities described. All doctors should be aware of the great danger of prescribing thalidomide in pregnancy.—We are, etc.,

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1 Lenz, W., *Dtsch. med. Wschr.*, 1961, **86**, 2555.
2 —— *Lancet*, 1962, **1**, 45.
3 Kosenow, W., and Pfeiffer, R. A., *Mschr. Kinderheilk.*, 1961, **109**, 227.
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Myxoedema after Thalidomide ("Distaval")

SIR,—Dr. J. A. Simpson reports two cases of myxoedema after using thalidomide ("distaval") (January 6, p. 55). I wish to report one more case.

A married woman aged 49 began taking thalidomide 100 mg. nightly in September, 1960. In November, 1960, she noticed increasing lethargy, intolerance of cold, roughening and dryness of her skin, and deepening of her voice. Her own doctor diagnosed myxoedema and started her on thyroid in December, 1960: the dosage was increased to thyroid gr. 4 (0.26 g.) daily, with clinical and symptomatic recovery.

In September, 1961, she stopped taking the thyroid and her symptoms gradually returned. In October, 1961, she stopped taking the thalidomide and since November has noticed that her symptoms have again started to improve.

At present she has a small firm goitre and appears slightly myxoedematous. Her pulse is 60 a minute and her E.C.G. is of low voltage, but serum cholesterol, B.M.R., and radioactive iodine uptake are now normal. In addition to the onset of myxoedema in April, 1961, she developed a progressive peripheral neuritis with loss of superficial sensation in hands and fingers and below the knees with progressive muscle weakness. This has remained without further change since stopping the thalidomide. The acute onset of myxoedema is similar to the case reported by Dr. I. R. W. Alexander (November 25, p. 1434).

However, in spite of continuing the thalidomide for nine months after the diagnosis of myxoedema the patient is now recovering and her thyroid function is normal. Her peripheral neuritis is no longer progressive but recovery is often very slow[1] and this may still improve.

Myxoedema is undoubtedly a hazard of using thalidomide, but, as with other drug-induced myxoedema, this case has made a spontaneous recovery on the withdrawal of thalidomide. This does not reduce the importance of recognizing this possible aetiology and it is possible that the patients with myxoedema may be more likely to develop peripheral neuritis if thalidomide is continued. This case, like Dr. Simpson's cases, was considered too uncertain to report in full detail.—I am, etc.,

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1 Fullerton, P. M., and Kremer, M., *Brit. med. J.*, 1961, **2**, 855.

Dosage of Griseofulvin

SIR,—Dr. D. I. Williams (January 13, p. 109) raises the question of the dosage level of griseofulvin in its new, finely divided form. We have just recorded the results of a clinical trial with the new form of griseofulvin (*Lancet*, in press). Our results confirm the claim, based on blood-level estimations, that the finely divided preparation is as effective in a dosage of 500 mg. daily as 1,000 mg. daily of the original form.

We agree with Dr. Williams that many cases could be cured with 500 mg. of the older form daily. Therefore we also tried the effect of 250 mg. daily of the new product. Our results indicate that it too is very effective, even in some of the most resistant fungous infection of nails. It is more than likely that the original dosage of griseofulvin suggested (on empirical grounds) was too high and that lower doses are adequate. The new, finely divided preparation is also effective at correspondingly lower dosage and it seems to us that the claim that it is more effective weight for weight is justified. It does appear to be about twice as effective as the old form and therefore only half the dose is required.

If griseofulvin is effective because it is deposited in keratinizing tissue and acts as a barrier to invasion by fungus, then surely a preparation which renders it more easily absorbed from the alimentary tract will enhance its depositions in those tissues. The concentration in keratinizing tissue depends largely on the blood concentration. A preparation which produces an adequate